Process For Patterning High-k Dielectric Material

ABSTRACT OF THE DISCLOSURE

A method of patterning a layer of high-k dielectric material is provided, which may be used in the fabrication of a semiconductor device. A first etch is performed on the high-k dielectric layer. A portion of the high-k dielectric layer being etched with the first etch remains after the first etch. A second etch of the high-k dielectric layer is performed to remove the remaining portion of the high-k dielectric layer. The second etch differs from the first etch. Preferably, the first etch is a dry etch process, and the second etch is a wet etch process. This method may further include a process of plasma ashing the remaining portion of the high-k dielectric layer after the first etch and before the second etch.